



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,843	05/17/2006	Thorsten Goldacker	286805US0PCT	5731
22850	7590	01/27/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
NUTTER, NATHAN M				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
01/27/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

# Office Action Summary

**Application No.**

10/579,843

**Applicant(s)**

GOLDACKER ET AL.

**Examiner**

Nathan M. Nutter

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/DF)  
Paper No(s)/Mail Date 05-06, 02-08, 03-08, 07-08, 01-09
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_



## DETAILED ACTION

### *Claim Rejections - 35 USC § 112, First Paragraph*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 2 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for those resins positively recited in the claim, does not reasonably provide enablement for any type of "mixture (blend) of various plastics." The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make any use the invention commensurate in scope with these claims.

Case law holds that applicant's specification must be "commensurately enabling [regarding the scope of the claims]." See *Ex Parte Kung*, 17 USPQ2d 1545, 1547 (Bd. Pat. Appl. Inter. 1990). Otherwise **undue experimentation** would be involved in determining how to practice and use applicant's invention. The test for undue experimentation as to whether or not all compounds within the scope of claim 2 can be used as claimed and whether claim 2 meets the test is stated in *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat. Appl. Inter. 1986) and *In re Wands*, 8 USPQ2d 1400 (Fed. Cir. 1988). Upon applying this test to claim 2, it is believed that undue experimentation **would** be required because:

(a) *The quantity of experimentation necessary* is **great** since claim 2 reads on any type of polymer blend or alloy such as reactor blends, made in series,

compatibilized blends, natural polymer blends, etc.. The number of thermoplastic resins is enormous; subsequent combinations of two or more even moreso.

(b) There is **no direction or guidance presented** for making a polymer blend comprising any type of "mixture (blend) of various plastics."

(c) There is an **absence of working examples** concerning making a polymer blend comprising any type of "mixture (blend) of various plastics."

In light of the above factors, it is seen that undue experimentation would be necessary to make and use the invention of claim 2.

#### ***Claim Rejections - 35 USC § 112, Second Paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of "various thermoplastics" at (line 8) is not clear as to the scope of its proper metes and bounds. The term "various" is so broad as to be vague. As such, the claim is deemed to be vague and confusing.

#### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims

are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 5, 10 and 11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 24-41 and 43-46 of copending Application No. 10/575,929 (US 2007/0055017) Schultes et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending claims the identical matrix and the identical particulate. The claims show an injected molded article, as herein recited, from a poly methyl methacrylate matrix having dispersed therethrough a cross-linked poly methyl methacrylate present in quantities embracing that herein.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 and 8-12 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yang et al (US 7,067,188).

The reference to Yang et al ('188) teaches the production of a matrix polymer that may comprise thermoplastic polymers, including polymethyl methacrylate, an impact-modified polymethyl methacrylate, a polycarbonate, a polystyrene, an acrylate-styrene-acrylonitrile graft copolymer (ASA), a styrene acrylonitrile (SAN), a polyester,

polyethylene terephthalate (PET), polybutylene terephthalate plastic (PBT), polyvinyl chloride plastic (PVC), a polyolefin plastic, acrylonitrile-butadiene-styrene (ABS) or a mixture (blend) thereof, employed with discrete cross-linked particles, For extrusion molding of sheets and other articles. Note the paragraph bridging column 2 to column 3 which teaches the matrix polymers contemplated, column 4 (lines 22-27) for the impact-modified polymethyl methacrylate. The discrete particle may be core-shell at column 4 (lines 41-44) and may employ a cross-linking monomer including the recited ethylene glycol diimethacrylate. Note column 4 (lines 45-62) for the cross-linking agent and the monomer percentages, that embrace those claimed herein. The blend may be processed through extrusion molding techniques to produce sheets and profiles (pipes). Note column 6 (lines 37-43). The textured surface of a sheet formed therefrom has a surface roughness of 0.5  $\mu\text{m}$ . Note the paragraph bridging column 6 to column 7. The monomer concentrations of claim 5 are shown at column 2 (lines 22-27).

The reference teaches essentially the identical invention as recited and claimed herein. The reference does not teach the particular glass transition temperature of the matting agent or of the impact modifier components of claim 4. However, these characteristics have not been shown to be separate from the particular compositions. Since there are no limitations in the claims to further differentiate the reference as to the scope of these parameters, they would be deemed to be inherent. When a reference discloses all of the limitations of a claim except a property or function, and the Examiner is unable to determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention, basis exists for shifting the burden of



proof to applicant. Note *In re Fitzgerald et al* 619 F. 2d 67, 70, 205 USPQ 594, 596 (CCPA 1980). Note MPEP § 2112-2112.02. As such, the instant claims are deemed to be at least obvious, if not anticipated, by the teachings of the reference.

Claims 1-4 and 6-12 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yang et al (US 6,841,612).

The patent to Yang et al ('612) teaches the production of a matrix polymer that may comprise thermoplastic polymers, including polymethyl methacrylate, an impact-modified polymethyl methacrylate, a polycarbonate, a polystyrene, an acrylate-styrene-acrylonitrile graft copolymer (ASA), a styrene acrylonitrile (SAN), a polyester, polyethylene terephthalate (PET), polybutylene terephthalate plastic (PBT), polyvinyl chloride plastic (PVC), a polyolefin plastic, acrylonitrile-butadiene-styrene (ABS) or a mixture (blend) thereof, employed with discrete cross-linked particles, For extrusion molding of sheets and other articles. Note the paragraph bridging column 2 to column 3 and column 7 (lines 1-8) which teaches the matrix polymers contemplated, including the impact-modified polymethyl methacrylate. The discrete particle may be core-shell at column 7 (lines 38-59), in as many as three stages, and may employ a cross-linking monomer including the recited ethylene glycol diimethacrylate. Note column 8 (lines 37 et seq.) for the cross-linking agent and column 7 (lines 8-37) for the monomer percentages, that embrace those claimed herein. The blend may be processed through extrusion molding techniques to produce sheets and profiles (pipes). Note the paragraph bridging column 10 to column 11.

The reference teaches essentially the identical invention as recited and claimed herein. The reference does not teach the particular glass transition temperature of the matting agent, of the impact modifier components of claim 4 or the surface roughness. However, these characteristics have not been shown to be separate from the particular compositions. Since there are no limitations in the claims to further differentiate the reference as to the scope of these parameters, they would be deemed to be inherent. When a reference discloses all of the limitations of a claim except a property or function, and the Examiner is unable to determine whether or not the reference inherently possesses properties that anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al 619 F. 2d 67, 70, 205 USPQ 594, 596 (CCPA 1980). Note MPEP § 2112-2112.02. As such, the instant claims are deemed to be at least obvious, if not anticipated, by the teachings of the reference.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nathan M. Nutter/  
Primary Examiner, Art Unit 1796

nmn

18 January 2009